of total, HDL, and LDL cholesterol (Chl), and triglyceride levels. At d42 p.i. all surviving mice were sacrificed and brains harvested for cyst enumeration. The experiment was performed twice, and the shown data represent their cumulative results.

Results: A significant decrease ($p < 0.05$) in total Chl and HDL occurred in infected vs. control mice of d14, 21 and 42 p.i. Conversely, LDL levels were unaltered until d42, when LDL significantly increased ($p < 0.05$). While the number of cysts at the end of the experiment varied greatly (range 20—7460 per brain), a positive correlation ($p = 0.023$) was obtained between cyst counts >300 (in 44% mice) and LDL level.

Conclusion: Acute *T. gondii* infection apparently induces a decrease in reverse Chl transport. While this decrease persists up to chronicity it is only then that an increase in direct Chl transport occurs. To clarify the mechanisms underlying *T. gondii*-induced lipid metabolism alterations, our current research focuses on the analysis of Chl receptors (SR-BI and LDL-R), Apo A-IV, Apo B-100, and adiponectin, as well as the corresponding candidate genes.

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21.017

Response to a DTaP-IPV-Hib combined vaccine (Pentaxim) Given as a Booster in Thai Children Primed with an Acellular Pertussis Combination Vaccine

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Background: We assessed the immune response to Pentaxim when given as a booster dose in Thai children primed with a diphtheria, tetanus, acellular pertussis, inactivated poliovirus, hepatitis B, Hib-conjugate combination vaccine in infancy.

Methods: DTaP-IPV-Hib vaccine (Pentaxim™, Sanofi Pasteur AcXim family vaccine) was given as a 4th (booster) dose at 18—24 months of age to 156 children previously primed at 2, 4 and 6 months of age with a hexavalent vaccine containing the same vaccine antigens plus hepatitis B. A dose of monovalent hepatitis B vaccine was also given at birth. Antibody titers were measured just before and one month after the booster vaccination. Reactogenicity and safety were evaluated from parent reports.

Results: Seroprotection rates, approximately one year post-primary vaccination remained high. Anti-PRP GMT increased from 1.6 to 58.0 μg/mL pre- to post-booster vaccination. GMTs for PT and FHA increased from 3.8 to 181.2 EU/mL and from 18.0 to 289.7 EU/mL respectively. GMTs for each poliovirus type also strongly increased from pre- to post-booster dose. Vaccine reactogenicity was low. There were only two severe local reactions and two subjects had severe fever possibly related to vaccination, all of which resolved.

Conclusion: Pentaxim induced a strong booster response to all the vaccine antigens at 18-24 months and was well tolerated. The timing of this booster was appropriate as pre-year of life has been recommended and is the practice in many different countries, with the aim of expanding control of childhood infectious diseases including pertussis and Hib. [study E2I36]

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21.018

An Acellular Pertussis, Diphtheria, Tetanus, Inactivated Poliovirus, Hib-Conjugate Combined Vaccine (Pentaxim) at 2, 4, and 6 Months of Age Plus Hepatitis B at Birth, 2, and 6 Months of Age in Infants in Thailand

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Background: We evaluated the immunogenicity and safety of a pentavalent acellular pertussis, inactivated poliovirus-based combination vaccine in a tropical country, with concomitant administration of hepatitis B vaccine.

Methods: The pentavalent combination vaccine Pentaxim™ (sanofi pasteur, AcXim family vaccine), containing diphtheria, tetanus, acellular pertussis, inactivated poliovirus, and *Haemophilus influenzae* type B conjugate (PRP-T) antigens was given to 186 Thai infants at 2, 4 and 6 months of age. Hepatitis B vaccine was given at birth, 2 and 6 months of age, following the national schedule. Immunogenicity data from French infants vaccinated with the same schedule was used as a reference. Antibody titers were measured one month after completing the three-dose primary vaccination. Reactogenicity and safety were evaluated from parent reports.

*Results:*After the third dose, anti-PRP ≥ 1.0 μg/mL was observed in 96.5% (95%CI 92.6; 98.7) of subjects (GMT = 9.3 μg/mL). Anti-polio GMTs were 120, 1553 and 3003 1/dil U. for poliovirus types 1, 2 and 3 respectively. Two-fold increase from pre- to post-vaccination in antibody concentration were 97.6% and 97.7% for PT and FHA respectively. Anti-PT and anti-FHA GMTs increased from 2.8 to 176 EU/mL, and from 3.7 to 119 EU/mL respectively. Anti-pertussis PT and FHA antibody titers ≥ 25 EU/mL were observed in 100% and 98.8% of subjects, respectively. Hepatitis B seroprotection rate (anti-HBs ≥ 10 mIU/mL) was 100% (95%CI 97.5%; 100%) with a GMT of 1561 mIU/mL (95%CI 136; 1783 mIU/mL). Vaccine reactogenicity was low, with fewer than 1% of vaccine doses eliciting a severe solicited adverse reaction. No case of hypotonic hyporesponsive episode was reported. There were no drop outs because of adverse events.

Conclusion: The immunogenicity of Pentaxim, when given at 2, 4 and 6 months of age in the tropical climate of Thailand was high, and similar to responses in European infants. The vaccine was well tolerated even when given concomitantly at separate sites with hepatitis B vaccine [NCT00254969].

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